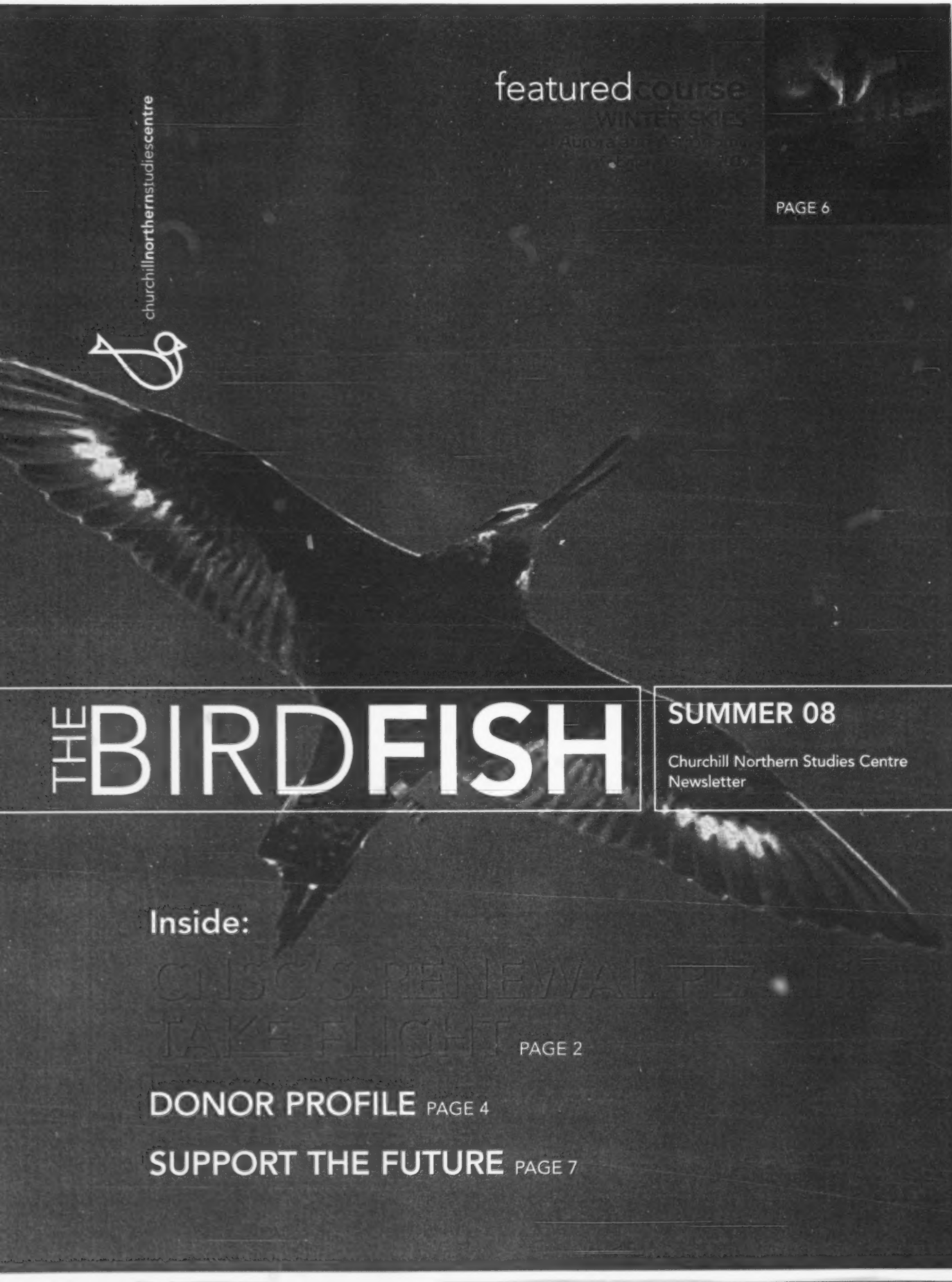

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featured course

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SUMMER 08

Churchill Northern Studies Centre Newsletter

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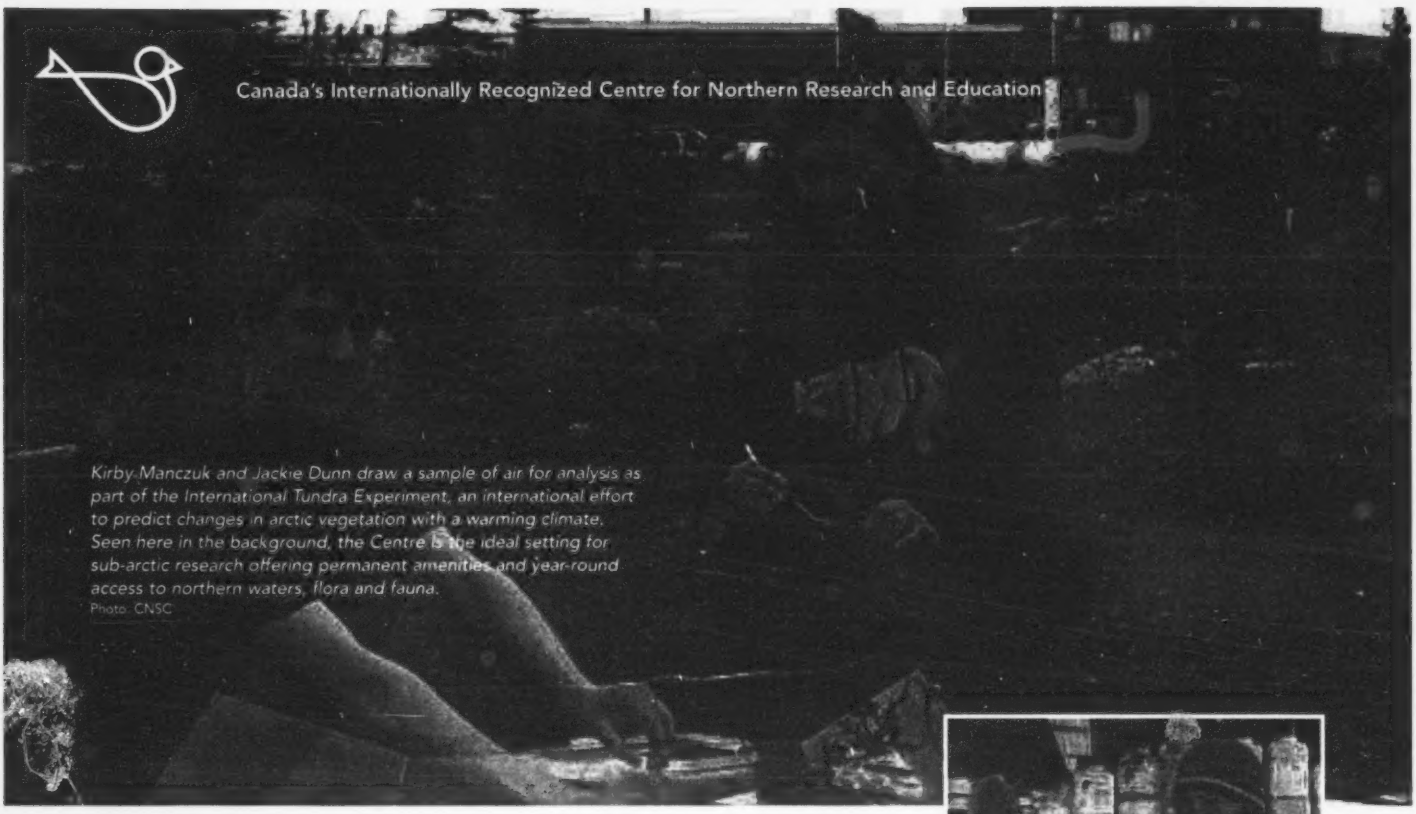


Kirby Manczuk and Jackie Dunn draw a sample of air for analysis as part of the International Tundra Experiment, an international effort to predict changes in arctic vegetation with a warming climate. Seen here in the background, the Centre is the ideal setting for sub-arctic research offering permanent amenities and year-round access to northern waters, flora and fauna.
Photo: CNSC

RENEWAL

at the Churchill Northern Studies Centre

Kate Edwards (University of Toronto) records data on soil microbe activity. Her work, and those of many other researchers, will benefit greatly from new laboratories with improved climate control.
Photo: CNSC

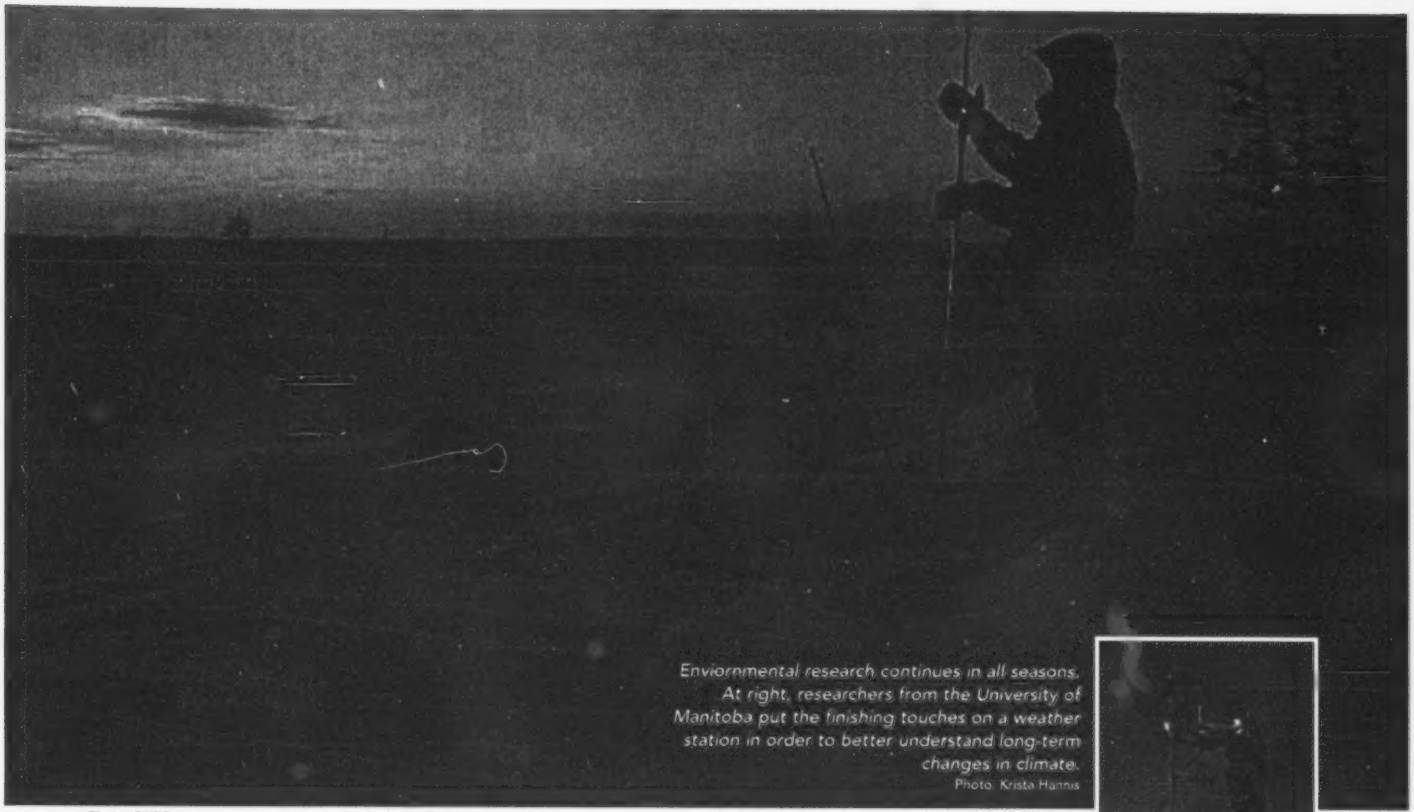
The Churchill Northern Studies Centre is excited to announce design and planning of a $15 million facility upgrade is underway. Improvements to the Launch Road facility will include both renovations and new constructions scheduled over the next three to five years. These ambitious plans will dramatically transform the Centre and pave the way for continued excellence in internationally recognized northern research and education.

The planned revitalization and expansion of the Centre will meet many goals. In addition to facilitating continuing research, an improved facility will attract new and cutting edge projects, enhance public education programming, and boost quality of the visitor experience. Research users especially, will benefit from improvements in laboratory and classroom facilities, and more efficient office spaces will be created. Dormitory accommodations will be enhanced, with washroom facilities augmented. Everyone will benefit from improvements to the cafeteria. Energy conservation will be a focus for the redevelopment and new environmental efficiencies will be sought throughout the renewal project.

Integrated Designs Inc., a Saskatoon-based company with an office in Winnipeg, has been hired to coordinate design and to provide comprehensive project management for the duration of the redevelopment. *"We're excited to take on the role of project managers for the CNSC and partner with an organization that is equally excited about developing a high-performance, practical, sustainable building project that exceeds traditional design and construction standards, and is proud to show leadership in sustainable development,"* explains Murray Guy, founder of Integrated Designs Inc. and a pioneer in promoting the integrated design approach.

This exciting redevelopment of the Centre becomes a reality through the support of a $1 million challenge grant, generously awarded by The W. Garfield Weston Foundation. This tremendous gift was instrumental in leveraging support from likeminded foundations and businesses: $2.2 million in contributions have been received from the private sector. The CNSC aims to raise another $800,000 from private sources and is also working closely with all levels of government to secure additional project financing.

This edition of The Birdfish is dedicated to introducing you, our loyal members, to the many important aspects of this transformative development. Between these covers, and in future editions, you will find invitations to participate in the planning and design of the new Centre, and share in the excitement of achievement as projects progress and milestones are reached. Your first opportunity appears on page 5.



Enviornmental research continues in all seasons. At right, researchers from the University of Manitoba put the finishing touches on a weather station in order to better understand long-term changes in climate.
Photo: Krista Hannis

Photo: CNSC

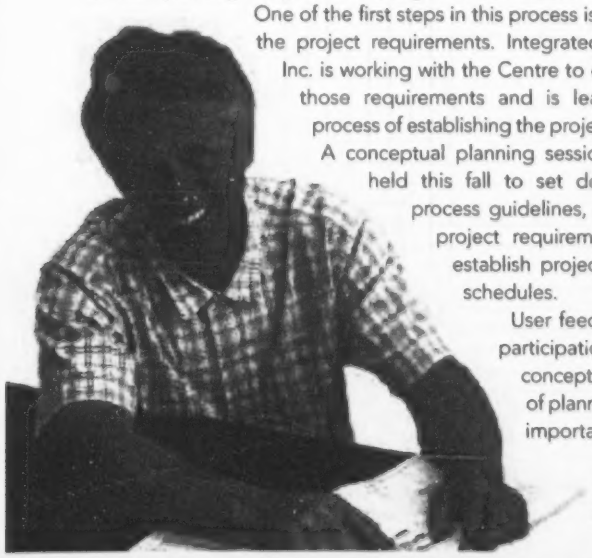
Integrated Designs Inc. has established itself as a sustainability leader in western Canada. Pioneers in the use of design integration in constructing facilities that use 50% less energy at no additional capital cost, they attribute their success to two things: a focus on collaboration – to achieve the necessary design integration goals; and on innovation – to achieve total life cycle cost and sustainable objectives within the constraints of traditional budgets.

The Integrated Design Process

Renewal of the Churchill Northern Studies Centre will take this approach one step further by applying it to the entire redevelopment process. Integrated project delivery will bring together people, systems, and business practices into a process that harnesses the talents and insights of all participants. This will increase value to the Centre, reduce waste, optimize project results, and maximize efficiency through all phases of design and construction.

One of the first steps in this process is to define the project requirements. Integrated Designs Inc. is working with the Centre to determine those requirements and is leading the process of establishing the project charter. A conceptual planning session will be held this fall to set design and process guidelines, refine the project requirements, and establish project delivery schedules.

User feedback and participation in the conceptual stages of planning is also important to the process of formulating the project vision. Suggestions and ideas brought forward from stakeholders, Centre members, and program participants are encouraged and will be considered for inclusion in design plans.



Murray Guy, MBA, P.Eng., Project Manager
Photo: Integrated Designs Inc.

Build Smarter, Build Better

A feasibility study is underway that includes research into an R60 monolithic dome as part of the new construction. Such a structure may be well suited to Churchill's harsh winter climate. Other feasibility studies will follow.

The project will target Gold certification with the Canada Green Building Council's LEED™ rating system. LEED™ stands for Leadership in Energy and Environmental Design. This rating system ensures that the project will meet rigorous criteria regarding energy and atmosphere, water efficiency, indoor environmental quality, sustainability, use of materials and resources, and innovation and design practice.

"...a high-performance, practical, sustainable building project that exceeds traditional design and construction standards..."

There are many benefits to developing a facility with an integrated approach to design and development. The collaborative process described will ensure the project meets expectations for quality, budget and schedule. It will also result in a safe, healthy and comfortable facility our research clients, other visitors and staff will enjoy for years to come.

The W. Garfield Weston Foundation

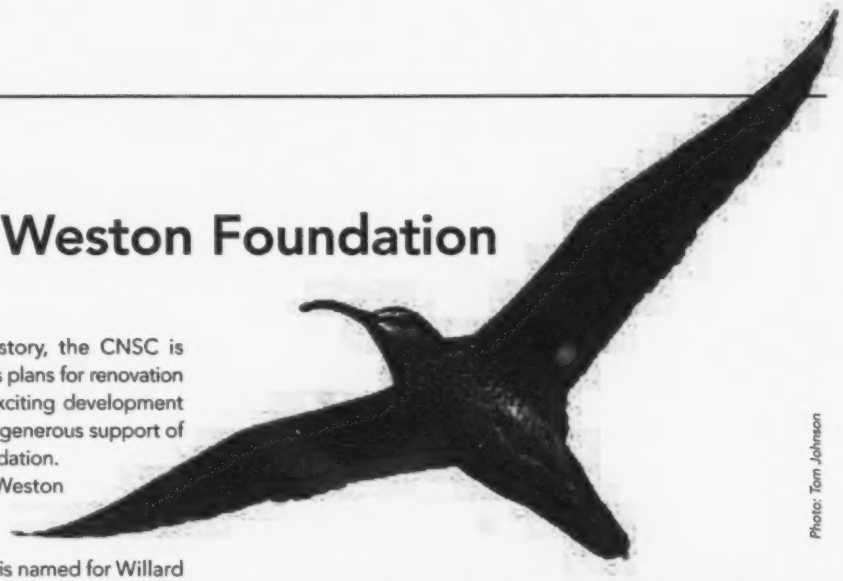


Photo: Tom Johnson

As announced in our cover story, the CNSC is moving forward with ambitious plans for renovation and new construction. This exciting development comes in no small part to the generous support of The W. Garfield Weston Foundation.

The W. Garfield Weston Foundation is a Canadian charitable foundation committed to making grants in Canada for the benefit of Canadians. The Foundation is named for Willard Garfield Weston, who established bakery and other successful enterprises throughout Canada. For three generations, The W. Garfield Weston Foundation has maintained a family tradition of helping charitable organizations to make a difference and enhance the quality of life for Canadians. According to the Foundation's mandate, most of the grant making is directed to education and the environment.

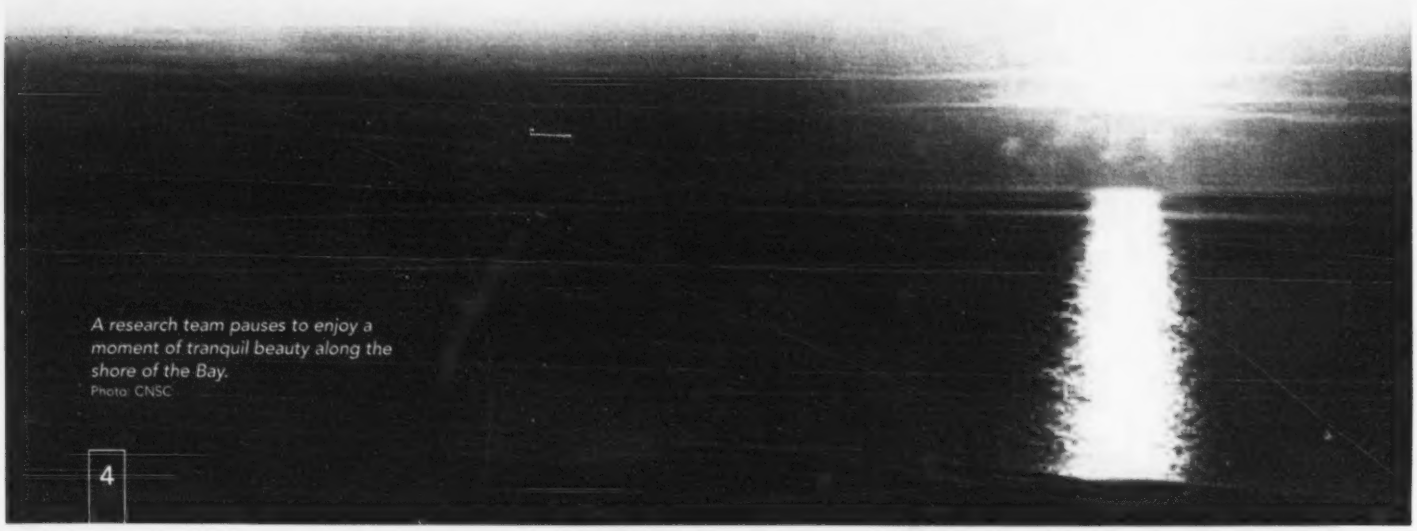
The Foundation was impressed by the sustainability of the Churchill Northern Studies Centre and its success in science and education. They are hopeful that the challenge will inspire others to support this worthwhile initiative.

The Foundation first heard of our plans through their ongoing partnership with the Nature Conservancy of Canada. Recognizing that significant financial resources would be needed to create an improved CNSC, the Foundation issued a bold challenge – raise $1 million from sources other than government in one year and the Foundation would match it. Initially daunting, this approach was very successful in encouraging other private foundations, businesses and government to contribute.

The Foundation was impressed by the sustainability of the Churchill Northern Studies Centre and its success in science and education. They are hopeful that the challenge will inspire others to support this worthwhile initiative.

The awarding of the challenge grant in February of 2008 represented the culmination of almost five years of careful analysis and planning. Countless hours were devoted to preparing business plans, financial models and construction estimates. The Foundation worked quietly in the background through this entire process providing advice and guidance when required. These critical first steps not only confirmed the viability of the project, but were instrumental to the success of the subsequent fundraising campaign.

Most importantly, numerous representatives of the Foundation have taken the opportunity to visit the Centre. In their words, *"The stark beauty of the North with its abundant wildlife was truly astonishing and something that every Canadian should see and experience."* From these shared experiences came the inspiration and encouragement to **"think big"**, to step back and fully consider what would be required to provide world-class facilities worthy of more than thirty years of research excellence. For that, we are truly thankful. ❁



A research team pauses to enjoy a moment of tranquil beauty along the shore of the Bay.
Photo: CNSC

CURRENT CAMPAIGN DONORS

We extend our heartfelt gratitude to all our donors. Thank you for your continued support.

The W. Garfield Weston Foundation

Manitoba Hydro

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Polar Inn and Suites

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Webber's Lodges

and several anonymous donors

It's Your Turn!

Help Design the New CNSC

Dreaming of the ultimate lab bench? Tired of standing in line for the showers in the morning? Wish the cafeteria could squeeze in a few more colleagues and friends?

Here's your chance to provide suggestions and ideas on how the new and improved CNSC could be just a bit more comfortable for your next research campaign or Learning Vacation visit.

Send your suggestions and ideas to **newsletter@churchillscience.ca**. All submissions will receive consideration in the design process. ***Really!***

We might even share them in a future issue of *The Birdfish*!

But wait! It gets even more exciting… those forwarding the most innovative or interesting ideas could find themselves inside one of our stylish CNSC hoodies. You too could look as smart as this average bear! Send us your suggestions today!

International Polar Year Funds

Equipment and Training Upgrades

by Carley Basler

Photo: CNSC

Research Technician Carley Basler adds a moss sample to one of the new drying ovens.

This past spring, a $40,000 award from International Polar Year (IPY) was provided to the CNSC to improve operational safety at the Centre. The focus of this funding, extended through the Logistics for Health and Safety component of IPY, allowed for staff safety training and the purchase of new equipment.

The first order of business was to recertify staff in CPR and Wilderness First Aid. A pair of instructors from Momenta, a Winnipeg-based, outdoor education company, qualified in Sirius Wilderness Medicine, spent two days in Churchill running staff through a rigorous refresher that included survival situation testing. Whew! This stimulating review spurred the purchase of new and improved first-aid kits, fully stocked with items introduced in the training sessions. Research staff also completed training in WHMIS and the Transportation of Dangerous Goods.

This was a significant financial contribution from IPY and, by far, the most exciting part was the shopping!!! The lion's share of the grant was invested in long-dreamed-for items such as satellite phones, hand-held radios, flotation suits, rescue beacons, and new firearm and ammunition security cabinets. CNSC staffers LeeAnn Fishback, Kim Daley, and Carley Basler, rose to the considerable challenge of tracking down the "best buys". Purchases for the laboratory included two new drying ovens, a fume hood, and chemical storage fixtures. The acquisition of these larger pieces inspired a little housecleaning in the lab and some of the outmoded *"rocket range era"* equipment was discarded, making room for the new items and, most important, more science!

IPY's boost to the Centre's operational infrastructure offered a so-sweet taste of things to come as we look forward to designing and building the new facility. ❄

- Executive Director, Michael Goodyear, extends specials thanks to LeeAnn, Kim, and Carley for spearheading these much-needed improvements and so carefully planning the purchases.

featured course

WINTER SKIES

Aurora and Astronomy

February 19 – 24, 2009

$ 935 CDN

Instructor: Roger *"Starman"* Woloshyn

Churchill, Manitoba is one of the best spots on Earth to view the *Aurora borealis*, the spectacular atmospheric phenomenon better known as the Northern Lights. For more than 240 years, astronomers and physicists have journeyed to Churchill, situated directly beneath the aurora oval, to probe the upper atmosphere with cameras, balloons, and even rockets. Now you can learn more about this stunning lightshow, from traditional folklore to the latest scientific findings. View the aurora from the comfort of our heated viewing dome by night and explore the Churchill area by day. Local tours, cultural presentations and an afternoon of dog mushing offer a taste of life in the subarctic. The Churchill Northern Studies Centre, your home for five days, sits in the shadow of massive 1950's era rocket launch towers. As the lights arc overhead in curtains of white, green and red, you'll swear you can hear the countdown. ❄

Roger *"Starman"* Woloshyn has been introducing people to the beauty of the northern lights for over 25 years and is one of our most experienced instructors. It was while working as the Director of the Planetarium at the *Manitoba Museum of Man and Nature* in Winnipeg that he first became known as *"Starman"* when a young visitor excitedly asked if he *"was the person who made the stars go."*

"While I've seen many photos and videos of the lights, nothing can approach the experience of standing there with those lights dancing and changing colors or snaking overhead in a winding river of light, bright enough to read a book by. Introducing the lights to those who have seen them rarely, or never at all, is my richest secret reward."

AS EASY AS 1, 2, 3...

You Can Support the Future of Research and Education in the North

Step 1: GET INVOLVED

Many of you have told us how much you appreciate the terrific opportunities for learning and the great sense of community here at the CNSC. Don't let those experiences become only memories when you leave Churchill. Stay involved by renewing your membership (you'll find a renewal form on the back page), volunteering at the CNSC, or submitting articles for *The Birdfish*. And we always welcome suggestions on how we can improve our service to you.

Step 2: DONATE

The CNSC has set a goal of raising a minimum of $3 million of our project budget from private foundations, corporations, and loyal members – like you! In fact, we're almost 75% there! You can help us achieve the remaining 25% by donating today. Gifts of $25CDN and over, and contributions of $250USD from US addresses are tax deductible. Why not get a jump on tax season? Use the donation form on the back page or contact the CNSC today and let us help you find the option that suits you best.

Step 3: TELL OTHERS

If the Centre has made a difference in your life, why not share that experience with others?

Let friends and loved ones know that you're proud to support the CNSC and encourage them to get involved.

Write a letter to your Member of Parliament or State representative and let them know how support for science and education is essential to a healthy and sustainable North.

Share your copy of *The Birdfish* with friends. If you are reluctant to give up your copy, (and we can understand why!) simply contact the Centre. We'll be happy to send you additional copies. And don't forget you can find the same great *Birdfish* online at **www.churchillscience.ca**.

There are still a few spots left in our 5-day **Lords of the Arctic** polar bear program **November 8 – 13** or **November 13 – 18**. ***Call Marie at (204) 675-2307 to register today!***

Established in 1976, the Churchill Northern Studies Centre is an independant, non-profit research station located along the western coast of Hudson's Bay.

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to understand and sustain the **north**

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The CNSC is a registered Canadian charity in part supported by the Manitoba Department of Advanced Education and Literacy and the Natural Sciences and Engineering Research Council of Canada through a Major Resources Support Program.

The Birdfish Newsletter is produced by CNSC staff with assistance from researchers and program participants.

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contribute

to the Churchill Northern Studies Centre Capital Campaign

churchillnorthernstudiescentre

This issue of The Birdfish is the first of many that will keep you abreast of the exciting changes and improvements planned for the Centre over the next few years. Now, more than ever, your contribution is needed to ensure this redevelopment meets all the expectations that YOU, our participants, researchers, and members, have for the future of the Centre. No contribution is too small. Every gift counts.

And it's so easy...

Clip this form and mail it with your cheque payable to: CNSC Capital Campaign, Churchill Northern Studies Centre, P.O. Box 610, Launch Road, Churchill, Manitoba, R0B 0E0;

Or visit our web site at www.churchillscience.ca and click on the big blue Donate button. This will take you to a secure site that exclusively handles donations to organizations like ours. Additional information about the security features is provided on the web page.

Or just give us a call at (204) 675-2307.

All donations will be recognized in campaign materials and annual reports unless you wish to remain anonymous. Tax receipts are provided for contributions over $25. We welcome all US donations. Contributions over $250USD are tax deductible. Contact Kim at **(204) 675-2307** or **daley@churchillscience.ca** for details.

CNSC Capital Campaign Contribution

Here is my support in the amount of $ _____

◯ **cheque or money order made payable to the CNSC Capital Campaign enclosed.** (Thanks! This saves us credit card fees.)

◯ Visa ◯ MasterCard ◯ American Express

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join

the Churchill Northern Studies Centre Today!

We rely on our membership to provide the support and funding needed to make the CNSC a place for world class research and education programs in the Canadian subarctic. Join us now and be part of these exciting times at the CNSC. Already a member? Use this form to ensure your membership remains current and YOU stay abreast of Centre activities.

Name: _____ E-mail: _____ Tel: _____

Address: _____ City: _____ Province/State: _____ Postal/Zip Code: _____

In accordance with the Personal Information Protection and Electronic Documents Act, names, addresses or other personal information collected by Churchill Northern Studies Centre is used for internal purposes such as informational mailings, membership renewals and other communications, and is not shared with any third party. Complete details of our privacy policy are available by contacting the CNSC.

◯ NEW* membership ◯ RENEW* my membership

◯ Individual $25 ◯ Student/Senior $20 ◯ Family $40 ◯ Corporate $500 *One-year CNSC membership

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Tax receipts are provided for Canadian donations of $25 or more. Membership fees are not tax-deductible.

Please detach and mail to:
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P.O. Box 610, Launch Road
Churchill, Manitoba
R0B 0E0 Canada
or call (204) 675-2307

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CNSC Membership

Total amount $ _____

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card number: _____

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name on card: _____

signature: _____

We appreciate your support of the Churchill Northern Studies Centre. Your donations support research and education that makes the world a better place. Thanks very much.

Cover Photo: Hudsonian Godwit / Tom Johnson